### Koelsch

- Gravity 13.8 BLG
- ABV **5.7** %
- IBU **26**
- SRM **4.5**
- Style Kölsch

## **Batch size**

- Expected quantity of finished beer 20 liter(s)
- Trub loss 5 %
- Size with trub loss 22 liter(s)
- · Boil time 60 min
- Evaporation rate 10 %/h
- Boil size 26.4 liter(s)

#### **Mash information**

- Mash efficiency 70 %
- Liquor-to-grist ratio 3.5 liter(s) / kg
- Mash size 21 liter(s)
- Total mash volume 27 liter(s)

# **Steps**

- Temp 45 C, Time 0 min
  Temp 52 C, Time 10 min
- Temp **64 C**, Time **45 min**
- Temp 72 C, Time 15 min
   Temp 78 C, Time 0 min

### Mash step by step

- Heat up 21 liter(s) of strike water to 48.6C
- Add grains
- Keep mash 0 min at 45C
- Keep mash 10 min at 52C
- Keep mash 45 min at 64C
- Keep mash 15 min at 72C
- Keep mash 0 min at 78C
- Sparge using 11.4 liter(s) of 76C water or to achieve 26.4 liter(s) of wort

#### **Fermentables**

Туре	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	6 kg <i>(100%)</i>	82 %	5

# Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hersbrucker	50 g	60 min	3.5 %
Boil	Hersbrucker	50 g	15 min	3.5 %

## **Yeasts**

Name	Туре	Form	Amount	Laboratory
Danstar - Windsor Ale	Ale	Dry	11 g	